

# **MADRID LOW IMPACT STORMWATER PROJECT**

Presented by

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## **Abstract**

While the New Mexico Abandoned Mine Land Program has worked extensively in the historic coal mining community of Madrid since the 1980s, in 2010 and 2011 the Program, its consultants, residents, local civic groups, and several agencies participated in a coordinated community planning effort to find comprehensive solutions to Madrid's legacy coal problems. One of the highest priority concerns identified by the community regarded issues arising from stormwater drainage off the gob piles and historic built environment. During intense storms, gob piles throughout the town produce significant sediment and runoff that impacts homes, businesses, roads and drainage structures. While the Program was developing context-sensitive low impact stormwater alternatives, an extreme storm event in 2013 caused severe flooding and gob erosion, washing coal gob and debris into local homes and businesses, particularly at the Mine Shaft Tavern and Museum Complex.

Working quickly, the AML Program completed an emergency project in October 2013 constructing temporary protection measures along properties at the base of the eroded gob piles and roads to protect homes and businesses from further damage.

Madrid is listed on the National Register of Historic Places and relies upon its historic character: particularly the visual aspects the mining landscape such as the gob piles and historic structures to attract tourism. Following the emergency project, extensive consultation and planning by AML compliance staff and its Contractors refined Low Impact Development (LID) based solutions that enabled construction of erosion control and stabilization measures during a two-phased construction approach between 2014 and 2016.

This presentation will focus on low impact reclamation practices, planning, and cultural resource mitigation efforts that AML and its contractors used to alleviate the impacts of stormwater and sediment runoff in the Madrid Historic District while maintaining community and agency reclamation goals, and preserving Madrid's historic landscape.